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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
HAGHIGHATIAN, MINA	
ART UNIT	**PAPER NUMBER**
1616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/500,213	BESSE ET AL.	
	Examiner	Art Unit	
	Mina Haghighatian	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,11-22 and 24-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9, 11-22, 24-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Receipt is acknowledged of Amendments and Remarks filed on 04/27/07. Claims 1-9, 11-22 and 24-27 are amended and claim 10 is cancelled. No new claims added. Accordingly claims **1-9, 11-22, 24-27** are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the **second paragraph** of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 7, 9, 13, 22, 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9, 13 and 24 are indefinite for containing the term "derivative". The said derivatives have not been disclosed in the specification and their scope is not generally known in the art. For example it is unclear what "a starch derivative" encompasses.

Claim 13 is indefinite for containing the term "a component of an essential oil". It would not be apparent to one of ordinary skill in the art what part or component of an essential oil is included in the formulation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-9, 11-19, 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno et al (EP 0839526 A2) in view of Geyer et al (5,320,848).

Ohno et al teach a solid pharmaceutical preparation comprising a pharmaceutically active ingredient, erythritol, crystalline cellulose and a disintegrant, which exhibits a fast buccal disintegration or dissolution (see abstract).

The said active agent may be in any form such as powder or granule. It is also disclosed that there is no limitation to the pharmaceutically active ingredients to be used. Many examples are listed on pages 3-4, including NSAIDs, vitamins, minerals, etc.

Ohno et al also discloses that said formulations may comprise other additives in addition to the erythritol and cellulose. The said additives include mannitol, citric acid,

malic acid, aspartame, magnesium stearate, polyethylene glycol, talc, colorants, etc. The dissolution time for the said formulation is usually from about 0.1 to 1.0 minutes (page 5). Ohno et al lacks disclosure on the particle size.

Geyer et al teach a non-aqueous, chewable composition for **oral** delivery of unpalatable drugs. The composition contains a drug intimately dispersed or dissolved in a pharmaceutically-acceptable lipid that is solid at room temperatures. The composition also has a matrix that contains a granulating agent for the total composition and a **rapid dispersal agent** and optionally additives such as buffering agents, flavoring agents, surfactants, and the like. Methods for the preparation of the chewable compositions are also provided (see abstract).

Geyer et al teach that chewable products can be in the form of compressed tableted material, or in the form of an un-compressed tableted material, or in the form of an uncompressed **powder**. The chewable composition preferably contains a rapid dispersal agent that is a cellulose derivative, more preferably the dispersal agent is croscarmellose sodium. The chewable composition is formulated to disperse and disintegrated rapidly in the mouth while masking the taste of the drug throughout the mastication process (Co. 2, lines 24-36). Active agents include ibuprofen, aspirin, cimetidine, acetaminophen, erythromycin, or the like (col. 2, lines 5-10). A drug-lipid mixture may be reduced to a powder and blended with a finely ground granulating agent for the drug and lipid to form a dry **powder** (col. 3, lines 29-33). The particle size can be

altered, and generally the particle size is from about **10-150 microns** (see col. 4, lines 12-17).

The formulations may comprise a granulating agent such as sorbitol, mannitol, dextrose, sucrose, lactose, starches or mixtures thereof (col. 4, lines 57-63). One preferred additive is a buffering agent for the drug such as sodium bicarbonate, sodium phosphates, or the corresponding calcium salts or the like (col. 5, lines 3-7). Other optional additives include sweeteners, coloring agents and flavoring agents (col. 5, lines 15-25). Rapid dispersal agents such as starches, cellulose or its derivatives or a mixture thereof may be added (col. 5, lines 29-32). Other optional additives include phospholipids, lecithin, oils, methylcellulose, etc (col. 5, lines 59-67). Examples 1-8 also disclose formulations and their method of making.

It would have been obvious to one of ordinary skill in the art to have combined the teachings of Ohno et al on immediate-release formulations with the teachings of Geyer et al on the rapid disintegrating formulations where the particle size is from 10 to 150 micron with the reasonable expectation of successfully preparing an efficient and fast acting formulation for delivering one or more active agent to patient as quickly as possible.

Claims 1-9, 12-19, 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geyer et al (5,320,848) in view of McCarty (5,073,374).

Geyer et al, discussed above, lacks specific disclosure on the amount of an antistatic agent and the dissolution time for the immediate-release formulations.

McCarty teach a fast dissolving buccal tablet for administering a medicament includes the active ingredient, a lubricant and a water soluble sugar, such as sorbitol, combined such that the buccal tablet dissolves in about one minute (see abstract). Examples of such medicaments include: steroids such as **estrogens, estradiol**, progestins, propranolol, thyroid hormones, ergotamine, bromocriptine, scopolamine, etc. Buccal administration of estradiol gives an unexpected early peak in the blood level followed by a slowly decreasing concentration. Buccal formulations utilize a disintegrant to accelerate buccal tablet disintegration. Such disintegrants include polyvinylpyrrolidone, starch, alginic acid, sodium starch glycolate, etc (col. 1, lines 23-56).

McCarty teaches that the soluble excipient is typically a sugar, such as sucrose, lactose or sorbitol (col. 2, lines 14-20). The suitable surfactants include pluronic, Tweens, sodium lauryl sulfate, polyethylene glycol, etc (col. 2, lines 25-30). And suitable lubricants include magnesium stearate, sodium dodecyl sulfate, etc. The lubricant is present in an amount ranging from about **1 to about 3** percent (see col. 2, lines 32-37).

McCarty discloses that the formulations can be prepared by simply mixing the ingredients. The formulation, upon administration, is said to disintegrate in about **30 seconds** to around 5 minutes (col. 2, lines 45-53).

It is then shown that Geyer et al discloses a chewable drug delivery system comprising a drug, surfactants and a rapid dispersal agent with particle size of less than 150 micron. McCarty teaches fast dissolving formulations comprising active agents, surfactants, wetting agents and lubricants which dissolve in less than 1 minute and preferably in about 30 seconds. Thus it would have been obvious to one of ordinary skill in the art to have combined the two references and prepared an immediate-release formulation which provides a fast acting medicaments for patients who need such therapies. In other words the combination of the cited references provide adequate disclosure to one of ordinary skill in the art to make and use the invention as claimed.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Geyer et al (5,320,848) in view of McCarty (5,073,374), as applied to claims 1-9, 12-19, 24-27 above, and further in view of Stamm et al (6,074,670).

Geyer et al and McCarty, discussed above, lack disclosure on specific antistatic agents of claim11 such as colloidal silica.

Stamm et al teach an **immediate-release** fenofibrate composition comprising a hydrophilic polymer and optionally a surfactant, and a method for preparing it (see abstract). The said active ingredient is in a micronized form having a size **less than 20 micron** (col. 1, lines 13-20). The composition may comprise polymers such as polyvinylpyrrolidone, poly-vinyl alcohol, hydroxyl- propylmethyl cellulose, gelatin, etc

(see col. 4, lines 14-26). The formulation may comprise other agents such as surfactants, wetting agents, lubricants, fillers, etc. The said optional agents include sodium lauryl sulfate, polyoxyethylene sorbitan, polyoxyethylene fatty acid glycerides, lactose, starch, **colloidal silica**, magnesium stearate, lecithin, etc (col. 4, lines 27-52).

Stamm et al disclose that the surfactant may be **comicronized** with fenofibrate (col. 4, lines 38-39) or the active agent is **micronized** with a polymer (col. 5, lines 58-60). The process produces granules which may be compressed to forma tablet (col. 6, lines 12-15). Example 1 discloses a micronized fenofibrate that has a particle size of about 5 microns.

Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno et al (EP 0839526 A2) in view of Geyer et al (5,320,848) and further in view of Mundt (6,978,894).

Ohno et al and Geyer et al, discussed above, lack specific disclosure on packaging of the pharmaceutical formulations.

Mundt teaches a blister package for pharmaceutical treatment card comprising a plurality of individual blisters suitable for containing pre-measured dosage of a pharmaceutical composition in the form of tablets, pills and capsules. Accordingly each blister is sealed and may be opened by a method of tearing, peeling or pushing (see abstract). The said blister package may comprise a peelable, backing layer abutting the

lidding layer opposite the blister layer, or other blister formats, wherein an individual blister cavity being opened by a method of tearing away a portion of the barrier strip to expose a portion of a notch cavity, peeling said backing layer away from the lidding layer (see col. 2, line 25 to col. 3, line 31).

It would have been obvious to one of ordinary skill in the art to have looked at the suitable packaging system taught by Mundt to package the dosage form disclosed by Ohno et al and Geyer et al because of the need for safety, accessibility and reliability in getting a pharmaceutical dosage form from manufacturer to the ultimate user.

Response to Arguments

Applicant's arguments filed 04/27/07 have been fully considered but they are not persuasive.

Applicant argues that "starch derivative" is not indefinite because the derivatives of starch are well known to the skilled artisan. Applicant further asserts that a Wikipedia search identifies glucose, dextrose, maltodextrine and various corn syrups as exemplary starch derivatives. This is not persuasive. By definition: In chemistry, a **derivative** is a compound that is formed from a similar compound *or* a compound that can be imagined to arise from another compound. In biochemistry, the word is used about compounds that at least theoretically can be formed from the precursor compound. Thus, in light of the above definition of the term "derivative" it is considered that the "intended" scope of the claim would not be clear to one of ordinary skill in the

art. Furthermore, it is noted that claim 9 recites a markush that includes sucrose, glucose, dextrose, a dextrin and a starch derivative. According to the Applicant a starch derivative already includes compounds such as glucose, sucrose, dextrose. Thus it is not clear what is intended by the term "derivatives".

Applicant makes analogous arguments regarding the terms "terpene derivatives" and "natural estradiol derivatives". The response cited above apply to these arguments as well.

Applicant argues against combination of Ohno et al and Geyer et al and states that the combination does not suggest a powder comprising an antistatic agent that comprises from 0.01% to 10% by weight. This is not persuasive because Ohno teaches using lubricants such as magnesium stearate and talc, but is silent with regards to the amount. Geyer teaches using buffering agents such as sodium phosphate or corresponding calcium salts in an amount of 0.1 to 10 percent by weight of the formulation. Thus the combination of both agents would lead to the use of 0.1 to 10% of a calcium phosphate or talc.

Applicant makes an analogous argument regarding combination of Greyer and McCarty and states that neither references teaches use of an antistatic agent. Again, this is not persuasive because Geyer teaches using buffering agents such as sodium phosphate or corresponding calcium salts in an amount of 0.1 to 10 percent by weight and McCarty teaches using lubricants such as magnesium stearate in an amount of 1 to 3 percent.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mina Haghighatian whose telephone number is 571-272-0615. The examiner can normally be reached on core office hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mina Haghighatian

Patent Examiner

July 31, 2007

Johann R. Richter

Supervisory Patent Examiner

Technology Center 1600